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BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
FOREST INSECT INVESTIGATIONS

FOREST INSECT SURVEY

SEQUOIA NATIONAL FOREST

Season of 1947

Submitted by

G. R. Struble, Entomologist

Approved by

F. P. Keen, In Charge

Forest Insect Laboratory
341 Giannini Hall, U. C.
Berkeley 4, California

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SEASON OF 1947

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George H. Struble

BARK BEETLE INFESTATIONS 1946

Except in the mixed conifer type of areas adjoining the General Grant Big Tree Grove, the losses from bark beetles remained low in the timbered areas of the forest as a whole, and there was no need for control work. Within the Grove area and adjoining National Forest, particularly in the stands lying immediately to the north, west, and south there was an active flare-up of mountain pine beetle in sugar pine which required suppression measures. Current killing of ponderosa and sugar pine in the Goat Corrall burned area had greatly diminished over the previous year. In the Kern River recreational areas near Fairview, outside the commercial timber belt, current heavy killing of digger pine threatened considerable damage to camping sites.

FIELD EXAMINATION 1947

This bark beetle survey was made between October 6 and 10 by assistant ranger Van Akkeren, Sequoia National Forest and G. H. Struble of the Berkeley Forest Insect Laboratory, Bureau of Entomology and Plant Quarantine. It was facilitated for one day through the cooperation of technician Dean Schlobohm of the State Division of Forestry. The survey included all of the principal forest areas lying between the Kings and Kern Rivers. The Mineral King area was not covered.

CURRENT TRENDS AND LOSSES

Generally low endemic conditions prevailed throughout the entire forest, with no area showing upward trends in bark beetle activity. As in other National Forest areas of the Southern Sierra sub-region there were a few localised Ips killings which were traceable directly to recent logging slash, most noteworthy of which were in the vicinity of Pinehurst, Camp Nelson, and Johnsondale. Activity in the 1943 Goat Corral Burn had subsided to a low endemic level. In the fir type there was a noticeable decline in activity of the fir engraver beetle and Sierra fir borer.

THE CONDITION BY AREAS

Goat Corral burn. A reconnaissance strip in this area, covering approximately 500 acres revealed 10 merchantable-sized trees killed in 1947. It was estimated that in the burned area as a whole there were between 50 and 75 trees, or approximately half of the number of fades showing in 1946.

Dunlap and McKenzie Ridge . Infestations were very light generally throughout the area lying between Whitaker Forest and Dunlap and along state highway route 180 above 4,500 feet in elevation. The only noteworthy localized insect flare-up occurred near a small logging operation northwest of Pinehurst. It is estimated that throughout this area infestations remained at about the same level as in 1946 with less than 20 trees per section killed.

Cherry Gap and Indian Basin. Mountain pine beetle infestations in sugar pine here this year were at a low level compared to 1946 when epidemic activity occurred in and adjacent to General Grant Grove. The sharp reduction is attributed to direct control work by fell-peel-burning methods in National Park areas and to the salvage logging of infested trees on adjacent National Forest lands. No fading sugar pines were found in roadside plots this year.

At Indian Basin there was indicated some increase in western pine beetle activity by the occurrence of several (7) recently killed ponderosa pines.

Ten Mile Basin and Big Meadows. Sugar pine infestations in this area as viewed from Buck Rock were definitely less than a year ago when low endemic activity was noted. Some slightly upward trend in ponderosa pine killing was indicated in the vicinity of Hume Lake and northwest of Lava Butte where 8 recent fades occurred in an area of about 1,000 acres.

Camp Nelson. Endemic conditions prevailed generally though the entire basin except in a few localized spots where Ips and D. brevicomis activity were evident. Noticeable topkilling was observed in the Tule River canyon 2 miles west of Camp Nelson where 9 topkills and one complete fade were counted. The heaviest local killing was observed along the road to Quaken Aspen about 100 yards west of the crossing at Belknap Creek. Here there were counted 31 fresh fades in a group (poles and larger) killed mainly by Ips. Two trees contained D. brevicomis. Two smaller groups were noted in the basin about one mile east of Camp Nelson. Elsewhere no infestations were observed. These infestations were attributed to broods developed in slash from summer logging activity. east of Camp Nelson.

Holby Meadows. The mountain pine beetle which has been active for the past several years in lodgepole pine stands here has definitely subsided this year. No new attacks were observed.

Upper Peppermint Creek and Dome Rock. Low endemic conditions prevailed in this area, with less than 10 killed trees per timbered section.

Upper Kern-Lloyd Meadows. Approximately 30 fades (Jeffrey pine) were counted from Needles Lookout indicating a low endemic condition slightly upward from a year ago. Northward in the Little Kern areas earlier observations in September indicated upward Jeffrey pine beetle activity. This situation in the Little Kern, coupled with lowered tree resistance by Pandora moth defoliations, indicates the possibility of further increases in Jeffrey pine beetle killing. For this reason the Little Kern areas should be observed closely for possible sharp rises in Jeffrey pine beetle killing.

Upper Deer Creek-Parker Pass. Low endemic activity in the ponderosa pine stands of this area prevailed again this year. The roadside plot (RD-2) covering 84 acres through this area revealed one tree killed during 1947.

Johnsondale. Both Ips and Jeffrey pine beetle activity were noted in the pine areas in and adjacent to Johnsondale. Several of the Jeffrey pines here were also killed by flathead borers (Melanophila gentilis). These local killings are attributed to logging and milling activity. While not serious, drought conditions prevalent through the area may induce stand weaknesses which with many beetles in the area could cause considerable timber losses. If possible, infested trees in this area should be salvaged.

Fairview-Springhill Recreational Area. Digger pine stands along the Kern River were much improved over a year ago. Current killing was confined to occasional trees as compared with large group killings in 1946. Reasons for the sudden decline in kill are uncertain.

Greenhorn Summit. No evident beetle activity was observed in this area.

RECOMMENDATIONS.

No direct control work is recommended in any of the timbered areas of this forest. Localized killings by Ips confusus, because of their close tie-in with logging slash, are expected to decline suddenly. The only areas requiring close observation to note possible aggressive bark beetle killing are in the Little Kern drainage and in the vicinity of Johnsondale. Salvage of infested trees in the vicinity of Johnsondale is recommended.